

IMCA Safety Flash 15/19

June 2019

These flashes summarise key safety matters and incidents, allowing wider dissemination of lessons learnt from them. The information below has been provided in good faith by members and should be reviewed individually by recipients, who will determine its relevance to their own operations.

The effectiveness of the IMCA safety flash system depends on receiving reports from members in order to pass on information and avoid repeat incidents. Please consider adding the IMCA secretariat (imca@imca-int.com) to your internal distribution list for safety alerts and/or manually submitting information on specific incidents you consider may be relevant. All information will be anonymised or sanitised, as appropriate.

A number of other organisations issue safety flashes and similar documents which may be of interest to IMCA members. Where these are particularly relevant, these may be summarised or highlighted here. Links to known relevant websites are provided at www.imca-int.com/links Additional links should be submitted to info@imca-int.com

Any actions, lessons learnt, recommendations and suggestions in IMCA safety flashes are generated by the submitting organisation. IMCA safety flashes provide, in good faith, safety information for the benefit of members and do not necessarily constitute IMCA guidance, nor represent the official view of the Association or its members.

1 Well Drilled in the Wrong Place Breaches Railway Tunnel

What happened?

At a large construction site in a big city, contractors drilled an exploratory well in slightly the wrong place and as a result drilled into the wall of a busy railway tunnel, closing the railway for three days.

The incident occurred during the construction of an extension to an underground railway line in Paris. The well was drilled for civil engineering/geological test purposes by the consortium of contractors in charge of the project. The well was drilled through the water table, and when the drill bit penetrated the railway tunnel, there was an inrush of ground water and mud into the tunnel. Within a few hours, this had reached a volume of 40 cubic metres. The RER A the busiest urban railway line in Paris was closed for three days as a result. There were no injuries or casualties.

What went wrong? What were the causes?

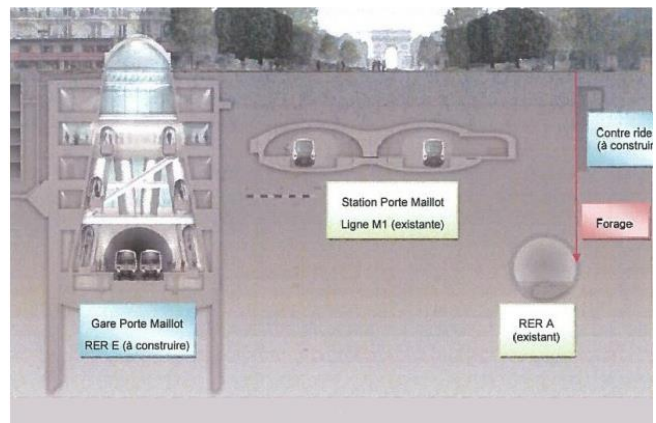
- ◆ The decision to drill the well was made by the contractors without the approval of the client;
- ◆ The positioning of the well was conducted without the control and validation of a surveyor. The official report noted: [translated from the French]

The lack of intervention of a surveyor resulted in an error which was sufficient to lead to the accident

What lesson was learned?

- ◆ Ensure that appropriate technical and professional advice is sought from surveyors for all operations requiring any type of positioning.

The French government report into the incident (in French) [Expertise sur la maitrise des risques des travaux en](#)



Le scénario d'un incident rarissime

- 1 LE FORAGE**
Lundi, dans le cadre des travaux Eole, un forage est réalisé pour analyser le sous-sol.
- 2 LA NAPPE PHRÉATIQUE**
Pendant sa descente, la tête de forage traverse une nappe d'eau souterraine située au-dessus de l'endroit où passe le RER.
- 3 UNE BRÈCHE DANS LE TUNNEL**
Vers 13 heures, la foreuse entre en contact avec le tunnel de circulation du RER A et y creuse un trou de 15 cm de diamètre. Les eaux chargées de boue de la nappe phréatique s'y engouffrent et inondent les voies.
- 4 LES CONSÉQUENCES SUR LE TRAFIC**
LA DÉFENSE-GRANDE-ARCHE, CH.-DE-GAILLE-ÉTOILE, AUBER, NANTERRE-PRÉFECTURE, CHÂTELET-LES HALLES. Tronçon fermé à la circulation.

LP/INFOGRAPHIE - T.H. ET P.C.

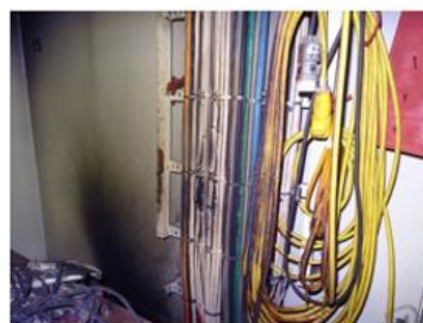
souterrain, premier rapport suite a l'incident de chantier du 30 octobre 2017* is available [here](#). *[Risk management in underground works – initial report following construction incident of 30 October 2017]

2 Space Heater Caught Fire

A space heater and some loose equipment caught fire. An area had been washed down as part of a housekeeping activity. As a precaution, electrical heaters were switched off and protected from the cleaning water by tarpaulins. The next area to be cleaned was being inspected by the cleaning supervisor and electrician on watch to ensure precautions were in place (e.g. electrical heaters switched-off and protected from washing water etc).

During this inspection, the cleaning supervisor informed the electrician on watch that the washing of the first area was complete. Upon completion of the inspection of the next area, the electrician remotely switched on the heater in the first area to assist with drying.

However, whilst washing activity in the first area was complete, the housekeeping was not. There were still three portable lights on top of the heater and it was still covered by tarpaulin. The three portable lights, tarpaulin and some adjacent electrical cables all caught fire.



What went wrong? What were the causes?

- ◆ Assumptions: when the cleaning supervisor informed the electrician that the washing of the column was finished the electrician assumed that this included housekeeping;
- ◆ Didn't check: the electrician switched on power to the heater without physically verifying that the protection had been removed.

How to prevent this happening?

- ◆ CHECK! Always physically verify that worksites are returned to a safe condition after completion of work;
- ◆ Never ASSUME that the site is safe without making sure;
- ◆ Never re-energise equipment before making sure that it is safe to do so.

Members may wish to refer search the [IMCA Safety Flash incident database](#) for themselves for such words as *assume, verify, check*.

A screenshot of the IMCA Safety Flashes website. The header includes the IMCA logo and navigation links: ABOUT IMCA, COMMITTEES, NEWS, EVENTS-MORE, RESOURCES, and A-Z. A search bar is located in the top right. The main content area is titled 'SAFETY FLASHES' and contains introductory text, a search bar for safety flashes (circled in red), and a list of 'Annual Listings' from 2012 to 2019. Below this is a 'LATEST ALERTS' section with two entries: 'Two battery issues – step change' and 'High potential near miss – unsecured sheave'. A 'Submit a Report' button is visible at the bottom right.

3 Main Engine Turbocharger Lagging on Fire

What happened?

The duty engineer noticed smoke and fire coming from a main engine turbocharger lagging. The bridge was informed immediately and the starboard main engine control was transferred to emergency control room. The vessel manoeuvred to emergency anchorage safely using the port main engine.

The vessel dropped anchor and engine room crew extinguished the fire. There were no injuries and all emergency procedures were followed appropriately.

What went wrong? What were the causes?

The damaged lagging was removed, and both the engines were tried out. No leakage was observed from the bellows and the manifolds. However, the lagging on both the main engine exhaust trunking had been replaced in recent days.

The cause was traced to inappropriate material and workmanship in the replacement lagging work. After the incident occurred, a request for clarification was sought and this was confirmed by the workshop manager in his communication.

What actions were taken? What lessons were learned?

- ◆ The vessel was safely anchored, and the lagging was removed from both engines;
- ◆ Engines were tried out and it was confirmed that no exhaust gas leaks were found;
- ◆ The lagging was renewed using the proper materials and better workmanship;
- ◆ The engines were tried out after lagging repair to confirm lagging effectiveness;
- ◆ Supply of proper quality and reliable material to be used by the repair workshops.

Members may wish to refer to:

- ◆ [Engine Room Fire](#)
- ◆ [Engine Room Fires – appropriate use of insulating material on hot surfaces](#)

4 Near Miss: Uncontrolled Movement of Gangway

What happened?

A vessel gangway moved in an unplanned way and could have been lost overboard. The incident occurred when the starboard gangway was under maintenance; the upper part of the turning platform had been removed earlier for maintenance. As a result, the gangway ladder was not connected to the turning platform. The ladder was secured with bolts.

In order to repair a corroded part of the fixed gangway platform, a welder secured the forward part of the gangway with rope. Then he loosened the securing bolts and gave a little slack on the gangway wire.

At that moment, the forward rope slipped off and the forward tip of gangway fell 2-3m from where it was secured. The aft tip of the gangway ladder was hanging by the gangway wire and securing rope. The forward part of the ladder was approx. 2-3m lower. The gangway wire and securing ropes on the aft part prevented the gangway from further falling over to the side.

Other crew immediately brought chain blocks and other equipment to secure and recover gangway ladder back in to the place.

What went wrong?

What ought to have been simple, straightforward and safe maintenance turned into a near miss. Two crew members were busy with the task and neither of them thought that anything could go wrong.

What was the cause?

- ◆ Human error:
 - inadequate attention to detail
 - inadequate job preparation
 - inadequate supervision.

What lessons were learned?

- ◆ Reiterate the importance of safety awareness at the highest level with each and every job – the lesson is that things can go wrong with the most straightforward and 'routine' jobs. Complacency is to be guarded against.

Members may wish to refer to:

- ◆ [Third-Party High Potential Near Miss – Dropped Gangway](#)

5 Have a Regime When the Current's Abeam – Ensure Adequate Manoeuvring Space!

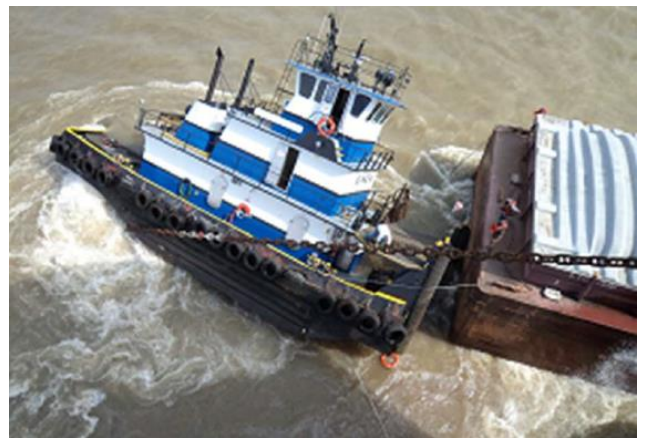
What happened?

The United States Coast Guard (USCG) has issued [Safety Alert 03-19](#) relating to the consequences of manoeuvring in high current environments.

Recently there were three marine casualties that resulted in the sinking of towing vessels on the Lower Mississippi River. One of the casualties resulted in a fatality. These cases are all under investigation by the Coast Guard, but the preliminary fact finding indicates there are some similarities between the three incidents.

In all three cases *'towing vessels became pinned against another object in an aspect that exposed the vessel broadside to very strong currents.'* Once in that position, the vessels could not recover and sank.

Whilst this alert deals with a river environment, the underlying issues are applicable to the marine environment, particularly where small boats are being used, and in the offshore renewables sector and/or where there are strong tidal flows.



The U.S. Coast Guard strongly recommends that towing vessel owners, operators, and other responsible parties take the following measures:

- ◆ Avoid transiting between two anchored vessels, between two barge fleets, or between any other set of stationary objects;
- ◆ Minimize the number of operations which require the vessel to be positioned beam-to the current;
- ◆ Establish a minimum distance between the towing vessel and another vessel/object prior to conducting any operation that requires the vessel to be positioned beam-to the current;
- ◆ Recognize the risks involved in operating under high current conditions and weigh those risks before attempting to cross in front of stationary objects or attempting an operation that requires the vessel to be positioned beam-to the current.

The full U.S. Coast Guard alert 03-19 can be found [here](#).

Members may wish to refer to:

- ◆ [Vessel Made Contact With Rig Legs \[effects of wind and current were not properly risk assessed\]](#)
- ◆ [Vessel Hit Moored Barge Whilst Turning](#)
- ◆ [Near Miss Incidents: Crew Transfer Vehicles Approaching Wind Turbines](#)